With regard to the §102(e) rejection, it is well-established law that "[a] claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference." See, e.g., Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). See also, M.P.E.P. §2131. Applicant asserts that Itri fails to teach or suggest each and every element respectively recited in claims 1, 9 and 17 and, thus, the §102(e) rejection of claims 1, 9 and 17 based on Itri clearly fails to meet the above legal requirements for anticipation. Support for this assertion follows.

Itri discloses a timing recovery system, which enables two or more receivers at one end of a digital subscriber loop to share a single analog-to-digital converter, while still allowing optimal phasing of each receiver clock relative to its received signal. The respective receiver clocks are phase offset by a fixed amount.

Independent claims 1, 9 and 17 recite that a digital subscriber line transport signal includes frequency and phase information associated with a transmitter-side timing reference signal. Additionally, a local oscillator is provided in the transmitter and adapted to receive the transmitter-side timing reference signal as an external timing reference. Furthermore, upon receiving the transport signal at the receiver, the frequency and phase information is recovered and a receiver-side timing reference signal is derived and used to control timing in the receiver.

The Examiner contends that Itri discloses a master timing source supplied by the central office and a remote terminal that derives the timing information from the received signal. However, even if these assertions are assumed to be correct, Itri fails to disclose, and the Examiner fails to address, the limitations relating to the processing in the transmitter of a payload signal and a transmitter-side timing reference signal to generate a digital subscriber line transport signal including frequency and phase information associated with the transmitter-side timing reference signal, as expressly recited in independent claims 1, 9 and 17.

In the Office Action, the Examiner states that "it would be inherent for each of the transceivers shown to include a local oscillator in order to transmit or receive at a particular frequency." However, Itri also does not disclose providing a local oscillator in the transmitter adapted to receive the transmitter-side timing reference signal as an external timing reference, as expressly recited in independent claims 1, 9 and 17. Therefore, Itri does not contain the disclosure which is necessary to support a claim rejection on the basis of inherency.

According to the Federal Circuit, "[i]nherency does not embrace probabilities or possibilities." Trintec Industries, Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1297, 63 USPQ2d 1597 (Fed. Cir. 2002). Further, an inherent anticipation requires that the missing descriptive material is necessarily present, and not merely probably or possibly present, in the prior art. In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

As evidenced by the arguments presented by the Examiner, there is an absence in Itri of any teaching of a local oscillator in the transmitter adapted to receive the transmitter-side timing reference signal as an external reference. Therefore, there is no reasonable basis for an assertion that a local oscillator provided in the transmitter, having the methods of the present invention, necessarily flows from the system disclosed in the Itri reference, and thus is inherent. No such basis and/or technical reasoning has been provided by the Examiner in the Office Action.

Applicant asserts that dependent claims 2, 3, 5, 6, 10, 11, 13, 14, 18, 19, 21 and 22 are patentable for at least the reasons identified above with regard to independent claims 1, 9 and 17. Applicant further asserts that the dependent claims 2, 3, 5, 6, 10, 11, 13, 14, 18, 19, 21 and 22 contain patentable subject matter in their own right. Accordingly, withdrawal of the §102(e) rejection to claims 1-3, 5, 6, 9-11, 13, 14, 17-19, 21 and 22 is respectfully requested.

With regard to the rejection of claims 4, 12 and 20 under 35 U.S.C. §103(a) as being unpatentable over Itri in view of Near, Applicant asserts that such claims are patentable for at least the reasons that their respective independent claims are patentable.

A proper *prima facie* case of obviousness requires that the cited references, when combined, must "teach or suggest all the claim limitations," and that there be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references or to modify the reference teachings. See M.P.E.P., Eighth Edition, August 2001, §706.02(j).

Applicant submits that the Examiner has failed to establish a proper *prima facie* case of obviousness in the present §103(a) rejection, in that the Itri and Near references, even if assumed to be combinable, fail to teach or suggest all the claim limitations, and in that no cogent motivation has been identified for combining the references or for modifying the reference teachings to reach the claimed invention.

The Examiner, in formulating the §103(a) rejection, acknowledges that the Itri reference fails to teach or suggest using stratum 1 traceable synchronization information. See the Office Action at page 4, first paragraph. However, the Examiner nonetheless argues that the claimed arrangements would be obvious in view of the combined teachings of Itri and Near. Applicant respectfully disagrees.

The Examiner characterizes the Near reference as teaching "a method for synchronizing interconnected digital equipment and further teaches the basic concept of the stratum level" (Office Action, page 4, first paragraph). Even if one were to assume that this characterization of Near is correct, the combined teachings of Itri and Near still fail to meet the above-cited claim limitations, for the reasons given below.

The combination of Itri and Near fails to disclose the elements of independent claims 1, 9 and 17 distinguished regarding to the §102(e) rejection, as described above. Further, the combination fails to disclose stratum 1 traceable synchronization information in a timing reference signal received by the local oscillator in the transmitter.

From the foregoing, it is apparent that each of claims 4, 12 and 20 includes at least one limitation which is not taught or suggested by the proposed combination of Itri and Near. The combined teachings of these references therefore fail to "teach or suggest all the claim limitations" as would be required by a proper §103(a) rejection.

Also, as indicated previously, the Examiner has failed to identify a cogent motivation for combining the cited references or for modifying the Itri and Near teachings to reach the claimed invention. The Examiner states that it would be obvious to combine these references or to modify their teachings to reach the limitations in question. In support of this position, the Examiner provides the following statement of obviousness at page 4, first paragraph of the Office Action, with emphasis supplied:

> At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that the common time base (master clock in figure 5 of Itri) should be as accurate a [sic] possible. Using a stratum 1 timing reference as taught by Near would clearly accomplish this well known goal.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination "must be based on objective evidence of record" and that "this precedent has been reinforced in myriad decisions, and cannot be dispensed with." In re Sang-Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that "conclusory statements" by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved "on subjective belief and unknown authority." Id. at 1343-1344. There has been no showing in the present §103(a) rejection of objective evidence of record that would motivate one skilled in the art to combine Itri and Near or to modify their teachings to produce the particular limitations in question. The above-quoted statement of obviousness given by the Examiner in the Office Action is precisely the type of subjective, conclusory statement that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. The absence of any such objective evidence instead suggests that the Examiner has simply undertaken a piecemeal reconstruction of the claimed invention, given the benefit of access to the disclosure provided by Applicant.

Therefore, the proposed combination of Itri and Near fails to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). Accordingly, withdrawal of the §103(a) rejection of claims 4, 12 and 20 is respectfully requested.

With regard to the rejection of claims 7, 8, 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Itri in view of Narasimha, Applicant asserts that such claims are patentable for at least the reasons that their respective independent claims are patentable.

Applicant submits that the Examiner has failed to establish a proper *prima facie* case of obviousness in the present §103(a) rejection, in that the Itri and Narasimha references, even if assumed to be combinable, fail to teach or suggest all the claim limitations, and in that no cogent motivation has been identified for combining the references or for modifying the reference teachings to reach the claimed invention.

The Examiner, in formulating the §103(a) rejection, acknowledges that the Itri reference fails to teach or suggest a timing reference signal generated by a building integrated timing supply having GPS capability, as well as a transmitted clock generated by an add-drop multiplexer associated with the transmitter. See the Office Action at page 4, second paragraph. However, the Examiner

nonetheless argues that the claimed arrangements would be obvious in view of the combined teachings of Itri and Narasimha. Applicant respectfully disagrees.

The Examiner characterizes the Narasimha reference as teaching that "in a digital network, there is a plurality of primary reference source checks implemented using GPS receiver technology" (Office Action, page 4, second paragraph). Even if one were to assume that this characterization of Narasimha is correct, the combined teachings of Itri and Narasimha still fail to meet the above-cited claim limitations, for the reasons given below.

The combination of Itri and Narasimha fails to disclose the elements of independent claims 1, 9 and 17 distinguished regarding to the §102(e) rejection, as described above. Further, the combination fails to disclose a timing reference signal, received by the local oscillator in the transmitter, that is generated by a building integrated timing supply having GPS capability. The combination also fails to disclose a timing reference signal, received by the local oscillator in the transmitter, having a transmit clock generated by an add-drop multiplexer associated with the transmitter.

From the foregoing, it is apparent that each of claims 7, 8, 15 and 16 includes at least one limitation which is not taught or suggested by the proposed combination of Itri and Narasimha. The combined teachings of these references therefore fail to "teach or suggest all the claim limitations" as would be required by a proper §103(a) rejection.

Also, as indicated previously, the Examiner has failed to identify a cogent motivation for combining the cited references or for modifying the Itri and Narasimha teachings to reach the claimed invention. The Examiner states that it would be obvious to combine these references or to modify their teachings to reach the limitations in question. In support of this position, the Examiner provides the following statement of obviousness at page 5, first paragraph of the Office Action, with emphasis supplied:

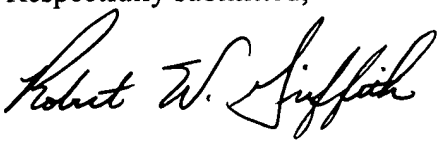
> At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize the GPS and ADM teachings of Narasimha in the system of Itri. One of ordinary skill in the art would have been motivated to do this because <u>both are teaching methods of distributing a synchronization signal and the teachings of Narasimha are also very well known in the art.</u>

There has been no showing in the present §103(a) rejection of objective evidence of record that would motivate one skilled in the art to combine Itri and Narasimha or to modify their teachings to produce the particular limitations in question. The above-quoted statement of obviousness given by the Examiner in the Office Action is precisely the type of subjective, conclusory statement that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. The absence of any such objective evidence instead suggests that the Examiner has simply undertaken a piecemeal reconstruction of the claimed invention, given the benefit of access to the disclosure provided by Applicant.

Therefore, the proposed combination of Itri and Narasimha fails to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). Accordingly, withdrawal of the rejection to claims 7, 8, 15 and 16 under §103(a) is respectfully requested.

In view of the above, Applicant believes that claims 1-22 are in condition for allowance, and respectfully requests withdrawal of the §102(e) and §103(a) rejections.

Respectfully submitted,



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Robert W. Griffith
Attorney for Applicant(s)
Reg. No. 48,956
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560
(516) 759-4547